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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,342	01/23/2004	Hidehiko Asai	03500.017847.	5188
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EXAMINER DHINGRA, PAWANDEEP				
ART UNIT 2625		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/762,342

Applicant(s)

ASAI, HIDEHIKO

Examiner

PAWANDEEP S. DHINGRA

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 15, 17-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 1-11, 14 and 22-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12, 15, 17-19 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

- This action is responsive to the following communication: Request for continued examination (RCE) filed on 1/6/2010.
- Claims 12, 15, 17-19 and 21 are pending.

Response to Arguments

Applicant's amendments, filed 10/15/2009 have been entered and fully considered. However, applicant's arguments filed 10/15/2009 have been fully considered but they are not persuasive.

Applicant argues that Yoshida fails to disclose a first setting unit configured to set a number of data arranged in the first direction independently of a number of the data arranged in the second direction based on a user instruction.

In reply, examiner asserts that Yoshida discloses a first setting unit (final controlling element 120, drawing 8, note that element 120 has a user interface with a ten key and a set key) configured to set a number of the data arranged in the first direction independently of a number of the data arranged in the second direction based on a user instruction (see abstract, paragraphs 70-71, 75, 97, note that instead of printing four identical images (two images in vertical direction and two images in horizontal direction as shown in drawing 14) on one A4 size sheet of paper, system (CPU 122, which controls the whole system) can be made to print two or three identical images based on a user's instruction on one A4 size sheet of paper).

Applicant further argues that in Yoshida the number of data arranged in first or second direction is not based on a user instruction but its based on a size of data and

size of recording sheet. However, examiner asserts that paragraph 97 clearly mentions that typically when data received is of A6 size and the record paper is of A4 size, four identical images are printed on one A4 size recording sheet. But, the system could be made to print two or three images instead of printing standard four images in first and second direction on one A4 size sheet. Thus, in order to make the system perform differently from typical processing, a user instruction of some sort has to be taking place.

Applicant argues that Funamizu fails to teach a second setting unit configured to set a number of data arranged in a second direction independently of a number of the data arranged in a first direction based on a user instruction.

In reply, examiner asserts that Funamizu teaches a second setting unit (see fig 44B) configured to set a number of data arranged in a second direction (vertical) independently of a number of the data arranged in a first direction (horizontal) based on a user instruction (see figs. 32-35, 44 with text, note that user can choose the number of data to be arranged in a vertical direction and a number of data to be arranged in a horizontal direction independently of each other based on user's preference) (note that fig. 32 shows a 4 in 1 configuration wherein 2 of data are in horizontal and 1 in vertical row, while fig. 34 shows two data in each row and fig. 35 shows only 1 data in single direction).

Claim Rejections - 35 USC § 101

Examiner has carefully considered the amendments filed by the applicant but previous 101 rejections to claims 15 and 17-19 are still valid and claims are still rejected

under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent and recent Federal Circuit decisions indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the claims 15 and 17-19 now recite a layout method in an image forming apparatus in the preamble, it does not really tie the steps of claim 15 to an apparatus, which actually performs those steps. It could be read as method written on a paper which could be placed in an image forming apparatus. Thus, the claim is not positively tied to another statutory category that accomplishes the claimed method steps, and therefore does not qualify as a statutory process. For example the image repeat function capable of performing a layout process to arrange plural data on the recording paper including steps of a first setting step, second setting step, selecting step and control step is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine.

Thus, applicant has provided no explicit and deliberate definitions of "first setting step", "second setting step", "selecting step" and "control step" to limit the steps to be performed and executed by a machine and the claim language itself is sufficiently broad to read on a person mentally setting the number of data arranged in first and second directions independent of each other based on user instructions, selecting a first layout mode or second layout mode and executing or sketching the layout modes on a sheet of paper.

Claim Rejections - 35 USC § 112

Previous 112 rejections to claims have been withdrawn in view applicant's amendments to the claims.

Examiner Notes

Examiner cites particular paragraphs, columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12, 15, 17-19 and 21 are rejected under 35 U.S.C. 103 as being unpatentable over Yoshida Takehiro et al., JP 2002-016812 in view of Funamizu et al. , US 5,867,279 further in view of Suzuki, US 5,289,570.

Re claim 12, Yoshida discloses an image forming apparatus (image communication device, drawing 8) which has an image repeat function (see abstract, drawings 14-15, paragraphs 92-100) capable of performing a layout process (see drawings 14-15) to arrange plural same data (see drawings 14-15, paragraphs 92-100) in a first direction (horizontal direction) and also arrange data same as the plural same data in a second direction (vertical direction) on a same face of one recording paper (see drawings 14-15, paragraphs 92-100), comprising: a first setting unit (final controlling element 120, drawing 8, note that element 120 has a user interface with a ten key and a set key) configured to set a number of the data arranged in the first direction independently of a number of the data arranged in the second direction based on a user instruction (see abstract, paragraphs 70-71, 75, 97, note that instead of printing four identical images (two images in vertical direction and two images in horizontal direction as shown in drawing 14) on one A4 size sheet of paper, system (CPU 122, which controls the whole system) can be made to print two or three identical images based on a user's instruction on one A4 size sheet of paper. Further note that paragraph 97 clearly mentions that typically when data received is of A6 size and the record paper is of A4 size, four identical images are printed on one A4 size recording sheet. But, the system could be made to print two or three images instead of printing standard four images in first and second direction on one A4 size sheet. Thus, in order to make the system perform differently from typical processing, a user instruction of some sort has to be taking place). Yoshida further discloses a second layout mode (see drawings 14-15) being that, in the image repeat function, the mutually adjacent same

data of the number set by said first setting unit are arranged in the first direction without an interval (see drawings 14-15, note that there is a boundary/cut line, CL to clarify the separation between the plural same mutually adjacent images arranged in the first direction but there is no interval or margin between the images, see paragraphs 92-100), and also the mutually adjacent same data of the number set by setting unit are arranged in the second direction without an interval (see drawings 14-15, note that there is a boundary/cut line, CL to clarify the separation between the plural same adjacent images arranged in the second direction but there is no interval or margin between the images, see paragraphs 92-100); a controller (CPU 122, drawing 8, CPU which controls the whole system) configured to execute the second layout mode in the image repeat function in a case where the second layout mode is selected (see drawings 14-15 with text).

Yoshida fails to explicitly disclose a second setting unit configured to set a number of data arranged in a second direction independently of a number of the data arranged in a first direction based on a user instruction; a selecting unit configured to select a first layout mode or a second layout mode, the first layout mode being that, the mutually adjacent data are arranged in the first direction with at least one interval, and also the mutually adjacent data are arranged in the second direction with at least one interval, and a controller configured to execute the first layout mode in a case where the first layout mode is selected by said selecting unit, and execute the second layout mode in a case where the second layout mode is selected by said selecting unit.

However, Funamizu teaches a second setting unit (see fig 44B) configured to set a number of data arranged in a second direction (vertical) independently of a number of the data arranged in a first direction (horizontal) based on a user instruction (see figs. 32-35, 44 with text, note that user can choose the number of data to be arranged in a vertical direction and a number of data to be arranged in a horizontal direction independently of each other based on user's preference) (note that fig. 32 shows a 4 in 1 configuration wherein 2 of data are in horizontal and 1 in vertical row).

Suzuki teaches a selecting unit (UI 80, fig. 5) configured to select a first layout mode (see figures 23-27 with text) or a second layout mode (see figures 19-22 with text) (see col. 4, lines 56-59, col. 20, lines 1-37) the first layout mode being that, the mutually adjacent data are arranged in the first direction (horizontal) with at least one interval, and also the mutually adjacent data are arranged in the second direction (vertical) with at least one interval (see figures 23-27 with text, note that boundary region, M has white data as margin between the mutually adjacent data (G1-G4) arranged in horizontal and vertical directions), the second layout mode being that, the mutually adjacent data are arranged in the first direction without an interval, and also the mutually adjacent data are arranged in the second direction without an interval (see figures 19-22, note that boundary region, M does not have any white data as margin between the mutually adjacent data (G1-G4) arranged in horizontal and vertical directions); and a controller (CPU 103, fig. 5, note that CPU controls the whole picture image editing system including editing means, boundary means, input from UI and interrupt processing routine) configured to execute the first layout mode in a case where the first layout

mode is selected by said selecting unit, and executing the second layout mode in a case where the second layout mode is selected by said selecting unit (see figures 19-26 with corresponding text).

It would have been advantageous to modify the image communication device of Yoshida to include image copying techniques as taught by Funamizu and the picture image editing system and techniques as taught by Suzuki for the benefit of setting a layout for arranging number of data in horizontal and vertical directions independently of each other on a single sheet of paper based on user's preference as taught by Funamizu in figures 36-38, 44 and "forming single-page picture image data in a page memory device by editing a plurality of sets or groups of picture image data input from an input unit, and then furnishing such picture image data edited in a single page format to picture image output equipment" as taught by Suzuki at column 1, lines 5-15. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Yoshida with the apparatuses of Funamizu and Suzuki to reach the aforementioned advantage.

Re claim 15, claim 15 recites identical features, as claim 12, except claim 15 is a method claim. Thus, arguments made for claim 12 are applicable for claim 15.

Re claim 17, Yoshida in view Funamizu further in view of Suzuki discloses wherein the image forming apparatus (Yoshida, drawing 1; Suzuki, figure 2) is capable of printing either one of image data sent from a scanner (Suzuki, element 20, figures 2, 5 with text) and image data sent from a computer (see Yoshida, paragraphs 9, 121-123,

note that data can be sent from a PC to another PC and can be printed; Suzuki element 80, figs. 2, 5 with text), and said selection step enables selection of either one of the first layout mode and the second layout mode (see Suzuki, col. 4, lines 56-59, col. 20, lines 1-37; figs. 19-26 with text) in the image repeat function (see Yoshida, abstract; drawings 14-15 with text) through an operation unit (UI 80, fig. 5 of Suzuki) of the image forming apparatus (copying machine of Suzuki as a whole as shown in fig. 2) (see Suzuki, figures 2,5 with text).

Re claim 18, Yoshida in view Funamizu further in view of Suzuki discloses wherein the image forming apparatus (Yoshida, drawing 1; Suzuki, figure 2) capable of printing image data sent from a computer (see Yoshida, paragraphs 9, 121-123, note that data can be sent from a PC to another PC and can be printed; Suzuki, element 80, figures 2, 5 with text), and said selection step enables selection of either one of the first layout mode and the second layout mode (see Suzuki, col. 4, lines 56-59, col. 20, lines 1-37; figs. 19-26 with text) in the image repeat function through an operation unit (UI 80, fig. 5 of Suzuki) of the computer (see Suzuki, figures 2,5 with text; Yoshida, paragraphs 121-123).

Re claim 19, Yoshida in view Funamizu further in view of Suzuki discloses wherein said selection step enables to select either one of the first layout mode and the second layout mode (see Suzuki, col. 4, lines 56-59, col. 20, lines 1-37; figs. 19-26 with text) in the image repeat function through an operation unit (UI 80, fig. 5 of Suzuki) of a computer (see Suzuki, figures 2, 5 with text; Yoshida, paragraphs 121-123).

Re claim 21, claim 21 recites identical features, as claim 15, except claim 21 merely deals with executing the method of claim 15 on a computer. Thus, arguments made for claim 15 are applicable for claim 21.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAWANDEEP S. DHINGRA whose telephone number is (571)270-1231. The examiner can normally be reached on M-F, 9:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. D./
Examiner, Art Unit 2625

Application/Control Number: 10/762,342

Page 12

Art Unit: 2625

/David K Moore/

Supervisory Patent Examiner, Art Unit 2625